

21. An illumination device according to Claim 19 wherein the cross sectional area of said reflecting surfaces increases as distance along said fibres increases in said preselected direction.

22. An illumination device according to Claim 19 wherein the cross sectional area of said reflecting surfaces varies such that the amount of light reflected out of each fibre by each of said reflecting surfaces is substantially equal.

23. An illumination device according to Claim 19 wherein the cross sectional area of the said reflecting surfaces and/or the spacing between said reflecting surfaces varies such that the light emitted over said light emitting region is substantially uniform. --

Remarks

This is in response to the Examiner's Action dated January 26, 1994. In that Action Claims 1 through 16, all of the claims in the present application, were rejected.

Applicants' attorney thanks the Examiner for the opportunity for an in-person interview held on Friday, July 22, 1994 in the Examiner's office. In that interview, although no agreement was reached with regard to any of the claims, applicants agreed to amend the present claims as well as submit new claims of varying scope. The Examiner agreed to consider these new claims in light of the art currently of record as well as any other art he may later deem appropriate.

Applicants have amended all of the claims previously pending to recite "an illumination device." In addition, all new claims submitted herewith include the same limitation. The references relied upon by the Examiner in the previous rejections relate to the use of fibre optics for data communications. The present invention, however, relates specifically to the use of optical fibres for purposes of illumination. Those skilled in the art of illumination systems, for example backlights for LCD displays, would be unlikely to turn to the field of data communications in order to develop their backlights. Clearly this distinguishes the present claims from the cited references.

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Claim 1 has been amended to include the additional limitation that the reflecting surfaces have varying cross-sectional area and/or spacing in order to cause the light emitted over the light emitting region to be substantially uniform. There is no teaching in the prior art that would lead one to this limitation. In fact, in the field of data communications, there would be no incentive to do so. Rather the desire would be to provide discrete branching locations where they are needed. It would be unlikely that the requirements of a particular installation would cause uniform emission of light from an optical fibre over a light emitting region.

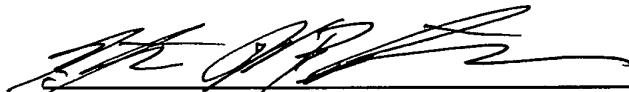
Claim 17 includes a additional limitation that the reflecting surfaces have varying cross-sectional areas such that the amount of light extracted from the fibre by each reflecting surface is substantially equal. Again there would be no teaching in the prior art that would lead one to this. The requirements of a data communication system are simply that sufficient signal be extracted from the primary fibre to allow that signal to be transmitted to the detector associated with the secondary fibre. As long as the amount of light extracted exceeds the threshold of the detector, there is no need for uniformity from one extraction site to another.

Finally, new Claim 19 recites an illumination device that includes a plurality of optical fibres formed into an array. Such an array provides a flat panel light emitting device. Such a device is clearly specific to the field of illumination and would not be required in the use of a fibre optic data communication system. Clearly these requirements of Claim 19 distinguish over the prior art as well.

Because, as amended, Claim 1, and Claims 2 through 16 by dependency, clearly distinguish over the cited references and are not obvious therefrom, and because Claims 17 and 19 as well as the claims dependent thereon also distinguish over and are

nonobvious in view of the cited references, the applicants respectfully requests that the Examiner reconsider the rejection of the present claims and allow all claims remaining in the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Stephen W. Buckingham', is written over a horizontal line.

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July 26, 1994

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